

REMARKS

This Amendment is submitted in response to the non-final Office Action mailed on December 23, 2008. No fee is due in connection with this Amendment. The Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112701-915 on the account statement.

Claims 1-24 are pending in the application. In the Office Action, Claims 1-24 are rejected under 35 U.S.C. § 112. Claims 1-24 are further rejected under 35 U.S.C. § 103(a). In response, Applicants have amended Claims 1, 3, 6 and 10-24 and have canceled Claims 2 and 4. At least in view of the amendments and/or for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

Applicants note that Claims 3, 10-16 and 17-24 have been amended solely for clarification purposes. These amendments do not add new matter. The amendments are supported in the Specification at, for example, page 1, paragraph 4, lines 9-11; paragraph 8, lines 1-5; paragraph 9, lines 2-3; paragraph 16, lines 1-3; page 2, paragraph 19, lines 1-2; paragraph 20; paragraph 22, lines 1-8; paragraph 24, lines 8-13; page 3, paragraph 32, lines 1-6; paragraph 33.

In the Office Action, Claims 1-24 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The Patent Office asserts that the phrase "greater section" in Claims 1, 6 and 17 is vague and unclear. See, Office Action, page 2, lines 8-12. In response, Applicants have removed the limitation "greater section" from Claim 17 and have amended Claims 1 and 6 to replace the phrase "greater section" with "greatest diameter." These amendments do not add new matter. The amendments are supported in the Specification, for example, at page 1, paragraph 4, lines 1-3; paragraph 12, lines 1-2; Fig. 1. Applicants respectfully submit that currently amended Claims 1 and 6 now clearly indicates that the "greater section" having a dimension d_1 is the greatest diameter of the body of the container.

With respect to Claim 6, the Patent Office further asserts that the phrase "substantially incompressible by hand" is indefinite because the phrase "by hand" is a relative term. See, Office Action, page 2, lines 18-21. The Patent Office further alleges that it is unclear what qualifies as "substantially incompressible." See, Office Action, page 2, lines 16-17. In response,

Applicants have amended Claim 6 to remove the limitation “the filled container being substantially incompressible by hand when filled with the product.” As such, Applicants respectfully submit that currently amended Claim 6 is not indefinite.

Accordingly, Applicants respectfully request that the rejection of Claims 1-24 under 35 U.S.C. §112, second paragraph, be withdrawn.

In the Office Action, Claims 1-11, 13-19 and 21-24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Japanese Patent Publication No. 2001-122237 to Hideaki et al. (“*Hideaki*”) in view of U.S. Patent No. 5,614,148 to Beck et al. (“*Beck*”) with evidentiary support from U.S. Patent Publication No. 2003/0031814 A1 to Hutchinson et al. (“*Hutchinson*”). In response, Applicants have amended Claims 1 and 6. In view of the amendments and/or for at least the reasons set forth below, Applicants respectfully submit that, even if combinable, the cited references fail to disclose or suggest each and every element of independent Claims 1 and 6 and Claims 3, 5, 7-11, 13-19 and 21-24 that depend therefrom.

Currently amended independent Claims 1 and 6 recite, in part, a container comprising a body formed by walls and a bottom, the body having as its greatest diameter a dimension d_1 and a neck with an internal diameter d_2 , said container being made from a semi-crystalline PET, the body of said container comprising at its bottom at least three feet spaced from each other and being integral with said body, wherein the ratio weight of the walls to the weight of the bottom is between 3 and 4 and the ratio volume, in ml, of the body of the container per gram of PET of the body is between 80 and 120, and wherein: the walls of the body have a thickness of less than 100 μm ; the part of the bottom between the feet has a thickness between 100 and 200 μm ; and each foot has a thickness between 50 and 150 μm . These amendments do not add new matter. The amendments are supported in the Specification, for example, at page 1, paragraph 4, lines 1-3 and 9-11; paragraphs 9-10; paragraph 12, lines 1-2; page 2, paragraph 24, lines 8-13; page 3, paragraph 41, lines 8-17; Fig. 1.

In the beverage packaging industry, it is desirable to reduce the weight of the plastic container used to hold the beverage. See, Specification, page 1, paragraph 2, lines 1-4. Conventional beverage containers have attempted to lower the weight of the plastic material used by reducing the weight of the bottom part. See, Specification, page 1, paragraph 2, lines 3-4. However, prior art solutions such as petaloid bottoms are still too thick and use too much plastic

material for the volume of product filled in the container. See, Specification, page 1, paragraph 2, lines 8-14. Therefore, the present claims provide a container made from a semi-crystalline PET, the body of said container comprising at its bottom at least three feet spaced from each other and being integral with said body, wherein the ratio weight of the walls to the weight of the bottom is between 3 and 4 and the ratio volume, in ml, of the body of the container per gram of PET of the body is between 80 and 120, and wherein: the walls of the body have a thickness of less than 100 μm ; the part of the bottom between the feet has a thickness between 100 and 200 μm ; and each foot has a thickness between 50 and 150 μm . This design results in a reduction of nearly 50% in the amount of material required per volume of product as compared with prior art containers. See, Specification, page 4, paragraph 43. In contrast, the cited references are deficient with respect to the present claims.

For example, even if combinable, the cited references fail to disclose or suggest a container wherein the ratio weight of the walls to the weight of the bottom is between 3 and 4 as required, in part, by independent Claims 1 and 6. The Patent Office admits that *Hideaki* fails to disclose a weight ratio of the walls to the bottom in the claimed range but nevertheless asserts that "one having ordinary skill in the art would expect, given the substantially similar wall thicknesses [] and given the relative height of the bottom portion of Beck et al. as compared to the wall portion. . . , the weight ratio of the walls and bottom of modified Hideaki et al. would fall within the claimed range." See, Office Action, page 5, lines 3-8. However, even if the wall thicknesses of the bottom and top portions of *Hideaki* and/or *Beck* are similar, the portion of *Beck* relied on by the Patent Office, Fig. 1, is not necessarily drawn to scale and does not indicate that the height ratio of the walls to the bottom is such that the weight ratio is between 3 and 4. See, *Beck*, Fig. 1. Furthermore, the Patent Office bases its conclusion of obviousness merely on the height ratio of the sidewalls to the walls of the bottom portion of *Beck* and fails to account for the weight of the feet or the valleys between the feet in the bottom of *Beck*. Nowhere do *Beck* or *Hideaki* disclose the weight ratio of the walls to that of the bottom of the container. Thus, the cited references fail to disclose or suggest a container wherein the ratio weight of the walls to the weight of the bottom is between 3 and 4 in accordance with the present claims.

Moreover, even if combinable, the cited references fail to disclose or suggest a container wherein the ratio volume, in ml, of the body of the container per gram of PET of the body is

between 80 and 120 as recited, in part, by Claims 1 and 6. The Patent Office admits that *Hideaki* fails to disclose that its volume per gram of PET ratio is within the claimed range and instead asserts that the container would include the claimed ratio merely because *Hideaki* discloses: (1) the trend toward using less resin to achieve equivalent volume containment, and (2) substantially similar wall thicknesses. See, Office Action, page 4, lines 18-21. However, regardless of whether the wall thicknesses of *Hideaki* are similar to those of the present claims, the weight of the PET for a given volume varies depending on the crystallinity of the PET. See, Specification, page 3, paragraph 36, Density/Crystallinity Table. Nowhere does *Hideaki* disclose or suggest the level of crystallinity of its PET. As such, even if the walls of *Hideaki* have similar thicknesses to those of the present claims, the density of the bottle is unknown and not necessarily within the claimed range. Furthermore, although it is desirable to use less resin to achieve equivalent volume containment, *Hideaki* expressly states that “[s]ince the bottom part 4 will have the load of the content applied to it, its walls should preferably be thicker than the walls of the barrel part 3.” See, *Hideaki*, page 6, paragraph 10, lines 3-5. *Hideaki* thus acknowledges that the container cannot be made too thin or light because it must be able to support the load applied to it. Therefore, the cited references fail to disclose a container wherein the ratio volume, in ml, of the body of the container per gram of PET of the body is between 80 and 120 as required, in part, by the present claims.

Furthermore, even if combinable, the cited references fail to disclose or suggest a container wherein the part of the bottom between the feet has a thickness between 100 and 200 μm and each foot has a thickness between 50 and 150 μm as recited, in part, by Claims 1 and 6. The Patent Office acknowledges that *Hideaki* discloses a bottom which is thicker than its sidewalls but nevertheless asserts that the bottom thickness is within the claimed range merely because Fig. 2 of *Hideaki* shows that the entire body and bottom of the bottle may be contained in the shoulder part and, thus, the thickness of the bottom must be “on the same order as the wall portion.” See, Office Action, page 5, lines 19-22; page 6, lines 1-3. However, the phrase “on the same order” typically means that the value is on the same order of magnitude. See, Wikipedia, “Order of magnitude,” http://en.wikipedia.org/wiki/On_the_order_of. *Hideaki* discloses that its ultra-thin sidewalls are between 20 and 50 μm . See, *Hideaki*, pages 5-6, paragraph 10. Therefore, if the bottom is “on the same order” as the sidewalls, the thickness may be anywhere

between 200 and 500 μm , not necessarily between 100 and 200 μm . In addition, Fig. 2 merely shows that the bottom part may be crushed and fit inside the shoulder part. See, *Hideaki*, Fig. 2. This does not indicate that the part of the bottom between the feet has a thickness between 100 and 200 μm . Furthermore, although *Hideaki* states that “the walls of the barrel part and the portion below it are ultrathin,” *Hideaki* fails to disclose that the part of the bottom between the feet is ultrathin. See, *Hideaki*, page 7, paragraph 13, lines 5-6. Nowhere does *Hideaki* disclose that the part of the bottom between the feet has a thickness between 100 and 200 μm .

Beck also fails to disclose a thickness of the feet and a thickness of the part of the bottom between the feet within the claimed ranges. *Beck* discloses that the thickness “A” between its feet is between 0.060 and 0.087 inches (1,524 to 2,210 μm). See, *Beck*, column 7, lines 33-34. This thickness is much greater than the 100 to 200 μm claimed range. *Beck* also discloses that more material is provided in its feet such that the thickness of its feet is between 0.008 and 0.14 inches (203 to 3,556 μm). See, *Beck*, column 7, lines 29-32. *Beck* thus fails to disclose the claimed thicknesses in the foot portion of its container. In fact, if the bottom portion of *Hideaki* is modified to include the petaloid foot structure of *Beck*, as the Patent Office suggests, the bottom portion would have much thicker feet and much thicker portions between the feet. Therefore, the cited references fail to disclose or a container wherein the part of the bottom between the feet has a thickness between 100 and 200 μm and each foot has a thickness between 50 and 150 μm as required, in part, by independent Claims 1 and 6 and Claims 3, 5, 7-11, 13-19 and 21-24 that depend therefrom.

Accordingly, Applicants respectfully request that the rejection of Claims 1-11, 13-19 and 21-24 under 35 U.S.C. §103(a) to *Hideaki*, *Beck* and *Hutchinson* be withdrawn.

In the Office Action, Claims 12 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Hideaki* in view of *Beck* with evidentiary support from *Hutchinson* and further in view of U.S. Patent Publication No. 2002/0185212 to Schaupp et al. (“*Schaupp*”). Applicants respectfully submit that, even if combinable, the cited references fail to disclose or suggest each and every element of Claims 12 and 20.

As discussed previously, *Hideaki*, *Beck* and *Hutchinson* fail to disclose or suggest a container wherein: (1) the ratio weight of the walls to the weight of the bottom is between 3 and 4; (2) the ratio volume, in ml, of the body of the container per gram of PET of the body is

between 80 and 120; (3) the part of the bottom between the feet has a thickness between 100 and 200 μm ; and (4) each foot has a thickness between 50 and 150 μm as required, in part, by independent Claims 1 and 6 from which Claims 12 and 20 depend. The Patent Office relies on *Schaupp* merely as support for a pad printing on the outside of the container. See, Office Action, page 7, lines 19-22; page 8, lines 1-3. Thus, Applicants respectfully submit that, even if properly combinable, *Schaupp* fails to remedy the deficiencies of *Hideaki*, *Beck* and *Hutchinson* with respect to Claims 12 and 20.

Accordingly, Applicants respectfully request that the rejection of Claims 12 and 20 under 35 U.S.C. §103(a) to *Hideaki*, *Beck*, *Hutchinson* and *Schaupp* be withdrawn.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same. In the event there remains any impediment to allowance of the claims that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Respectfully submitted,

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